

Description:

Poly-Bond is a water based, non-yellowing, high solids, acrylic polymer emulsion bonding admixture for Cement mortars, plaster, stuccos and concrete mixes. Poly-Bond improves adhesion, tensile, cohesion and flexural strengths of cement based compounds. When exposed to moisture it will not re-emulsify and can be used in both interior and exterior applications. It is a milky white liquid slightly thicker than water.

Purpose/Use:

Poly-Bond is used in cement based mixes such as mortars, plasters, stuccos, coatings, toppings, patches to improve the tensile, flexural, adhesive, curing, long term durability and resistance to moisture and cracking of the finished product. Poly-Bond is a superior acrylic latex emulsion used to bond concrete surfaces in both interior and exterior applications as well as above and below grade where durable, lasting repairs are needed.

Advantages:

- Does not re-emulsify
- Excellent bonding agent for increased adhesive strength
- Interior and exterior applications; above and below grade
- When used as an admix Poly-Bond improves freeze / thaw resistance in patches, mortars, coatings and grouts.
- Poly-Bond improves the curing, durability, resistance to cracking and moisture penetration of the finished product.
- Water based and VOC compliant
- High solids content

Physical Properties:

Appearance: Milky, white liquid
Odor: Mild acrylic odor
Specific Gravity: 1.059
Lbs./Gal: 8.8

Surface Preparation:

Surface must be clean, sound and free of dust, dirt, loose concrete, oil, curing and form release agents. Likewise all items interfering with bond-ability need to be removed such as paint, laitance, grease, efflorescence and other contaminants. New concrete surfaces must be cured for 28 days. Provide an absorbent interface on substrates by abrading the surfaces through shot blasting, wire brushing etc. Pre-dampen the prepared area to be patched or coated with water to a saturated surface dry (SSD) condition, having removed all standing water.

Bonding Agent:

Bond Coat: Brush Poly-Bond straight, undiluted or extended, directly onto the substrate. Before the liquid bond coat dries, and is still tacky, place the patching material.

Bond Slurry: Dry mix 1 part Portland cement with 2 parts dry fine sand; add enough undiluted Poly-Bond to produce a pourable slurry coat. Brush this liquid slurry coat into the voids and surfaces of the area to be repaired. The patching compound must

be placed before the slurry coat dries.

Mix Design Applications:

Mixing Liquid: Pour the Poly-Bond into a clean container, stirring the Poly-Bond slowly and thoroughly by hand, or by using low speed mixing equipment. Always mechanically mix, being careful not to over mix or entrain air. The maximum ratio of Poly-Bond to clean potable water is 1 part Poly-Bond to 2 parts water (1:2). When increased product attributes are needed increase the Poly-Bond content by using a water ratio of 1 to 1 (Poly-Bond to water). More diluted mixtures lower the polymer level and decrease the benefits of polymer modification. This becomes the : "mixing liquid".

Sand/Cement Mortar-Patches, Overlays & Topping up to 1":

Thoroughly combine all Portland cement and sands first, then add the Poly-Bond "mixing liquid". The sand must be clean, dry and free of contaminants. Use only clean water and mix for 2-4 minutes.

Suggested Mix Design for Repair Mortar (less than 3/4" thick)

1 Gallon of Poly-Bond
1 Gallons of Water
47 lbs. of Portland Cement Type I (½ bag)
150 lbs. of Sand (45mesh).

Add only enough mixing liquid needed to achieve the desired placement consistency. Material should be lump free and applied to the bond coated repair area, while the bond coat is till tacky. Do not over trowel, use light pressure and keep trowel clean and wet to prevent sticking. Placement time at 70°F is approximately 20 minutes.

Portland Cement Stucco:

Combine 1 part Poly-Bond to 3 parts potable water then mix as specified by the stucco manufacturer.

Curing:

Unmodified mortars require extensive moist curing conditions. However, Poly-Bond modified mortars do not require these conditions. For optimum physical properties, cement mortars modified with Poly-Bond should be air-cured at ambient temperature and relative humidity. Air cure the surface for 2-4 days for normal use and 4-7 days for heavy traffic areas. If a curing compound is used it must be water based and applied after 48 hours of air-curing. Wait 3 days at 70°F before exposing the mortar to foot traffic.

Yield:

Undiluted Bond Coat:
Approximately 200-300 ft².

Bond Slurry Coat:
Approximately 125 ft² at 1/8".

Sand/ Cement Mortar Up to 1":
Approximately 2.5 ft³ or 65 ft² at 1/2".

Storage:

Store between 40°F -95°F. Discard if product Freezes

Packaging:

1 gallon plastic units / 4 per case / 36 per pallet
5 gallon plastic pail / 36 per pallet

Shelf Life:

1 year in unopened undamaged container.

Clean Up:

Clean equipment with water and detergent immediately after use.

Health and Safety:

Refer to the MSDS before using this product.